CLOTHING HANGER

TECHNICAL FIELD

The present invention relates generally to garment hangers and more specifically to an apparatus and method for hanging clothing, wherein clothing hung thereby experiences minimal structural deformation. The present invention is particularly suited to suspending knit garments, such as, for exemplary purposes only, golf shirts, blouses, T-shirts, sweatshirts, and like clothing that is particularly susceptible to deformation.

BACKGROUND OF THE INVENTION

Various devices and methods are available for hanging clothing and the like, such as conventional wire hangers and ball-end hangers. Unfortunately, most available clothing hangers are functionally and structurally disadvantageous for knit clothing. For instance, existing ball-ends are small, smooth, and typically distort knit clothing, which easily slips off. Additionally, common wire hangers can cause deformation of knit clothing and are thus disadvantageous.

Therefore, it is readily apparent that there is a need for a hanger apparatus and method that overcomes the aforementioned disadvantages by providing a hanger that securely retains knit clothing from falling and minimizes or prevents deformation of the clothing hung thereon.

BRIEF SUMMARY OF THE INVENTION

Briefly described, in a preferred embodiment, the present invention overcomes the aforementioned disadvantages and meets the recognized need for such a device by providing a method and apparatus for hanging knit clothing that preferably does not deform the clothing hung thereon. The present apparatus and method is particularly suitable for hanging knit clothing, which is susceptible to deformation while in the hanging state.

According to its major aspects and broadly stated, the present invention in its preferred embodiment is a hanger in the configuration of an 'S'-shaped hook, wherein one end of the hanger has a ball-shaped structure in communication therewith, wherein the ball-shaped structure securely retains

clothing placed thereon without deforming the clothing so placed, and wherein retention of clothing thereon is facilitated via use of a non-slip surface.

More specifically, the present invention in its preferred form is an apparatus and method for hanging knit clothing, having a hook possessing a first curved end for hanging over or engaging a horizontal pole or rod, and a second end, wherein the second end is ball-shaped and of sufficient surface area to prevent deformation of clothing hung thereon. The ball-shaped end further includes a non-slip surface of sufficient friction to facilitate retention of the clothing placed thereon.

A feature and advantage of the present invention is its ease of use.

A feature and advantage of the present invention is that it can retain knit clothing in a hanging position without causing deformation of the clothing.

A feature and advantage of the present invention is its ease of manufacture.

A feature and advantage of the present invention is its suitability for hanging various types of clothing.

A feature and advantage of the present invention is its one-piece construction.

A feature and advantage of the present invention is that it can be manufactured as, and assembled from, individual components.

A feature and advantage of the present invention is that it can be fabricated in a configuration having multiple hook and ball ends.

A further feature and advantage of the present invention is its suitability for hanging draping material.

An additional feature and advantage of the present invention is that it can be manufactured in different colors and/or different sizes.

These and other features and advantages of the present invention will become more apparent to one skilled in the art from the following description and claims when read in light of the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Having thus described the invention in general terms, the present invention will be better understood by reading the Detailed Description of the Preferred and Selected Alternate Embodiments, with reference to the accompanying drawing figures, which are not necessarily drawn to scale, and in which like reference numerals denote similar structures and refer to like elements throughout, and in which:

FIG. 1A is a perspective view of a clothing hanger according to a preferred embodiment of the present invention;

FIG. 1B is a side view of a clothing hanger according to a preferred embodiment of the present invention;

FIG. 2 is a perspective view of a clothing hanger according to an alternate embodiment of the present invention;

FIG. 3A is a front view of a clothing hanger according to an alternate embodiment of the present invention having multiple two-ball units;

FIG. 3B is a front view of a clothing hanger according to an alternate embodiment of the present invention having a single two-ball unit; and

FIG. 3C is a profile view according to the alternate embodiment shown in **FIG. 3B**, as well as depicting the upper and lower ball profile according to the alternate embodiment of **FIG. 3A**.

FIG. 4A is a perspective view according to an alternate embodiment of the present invention.

FIG. 4B is a perspective view according to an alternate embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED AND ALTERNATIVE EMBODIMENTS

In describing the preferred and selected alternate embodiments of the present invention, as illustrated in the Figures, specific terminology is employed for the sake of clarity. The invention, however, is not intended to be limited to the specific terminology so selected, and it is to be understood that each specific element includes all technical equivalents that operate in a similar manner to accomplish similar functions.

Referring now to **FIGS. 1A** and **1B**, apparatus **10** is preferably formed as an 'S'-shaped hook having body portion **20** preferably having first end **30** with hook portion **40** formed therewith, where hook portion **40** is preferably shaped to hang over a horizontal pole or rod. Hook portion **40** is preferably flattened to cause apparatus **10** to hang facing forward. Shaped portion **80** preferably causes apparatus **10** to hang facing forward on the small rod that is integral with modern wire closet shelving. Preferably located at second end **50** is ball **60**. Ball **60** is preferably at least approximately two inches in diameter. Diameter of ball **60** is preferably

strategically selected to eliminate or substantially minimize distortion of materials placed over ball **60**, in particular, knit clothing.

Preferably located on exterior **70** of ball **60** is a non-slip surface similar to, for exemplary purposes only, 100 grit or coarser sandpaper, or alternately, a frictional elastomeric surface. Preferably the entire surface of ball **60** is non-slip to present the maximum such surface for contact with the garment hung thereon to facilitate retention of the garment.

Ball **60** is preferably joined to second end **50** of body portion **20** at an angle of approximately forty-five degrees from the vertical, which facilitates balance and unhindered contact of the garment with a maximum surface area of ball **60** for best retention.

Apparatus **10** is preferably manufactured and/or integrally formed as a single unit or, alternatively, in components that are subsequently assembled. Apparatus **10**, or the components to assemble it, are preferably fabricated by injection molding; however, any suitable process known within the art may be utilized, such as, for exemplary purposes only,

casting, rolling, turning, machining, bending, or other molding processes. Apparatus **10** is preferably fabricated from plastic, or alternatively may be fabricated of rubber, wood, metal, or a combination of rubber, wood, metal and/or plastic.

Referring now to **FIG. 2**, illustrated in an alternate embodiment is apparatus **200**, wherein apparatus **200** comprises multiple units of basic embodiment apparatus **10**, linked together rigidly or flexibly via connecting rod **250**, so that a plurality of clothes may be hung thereon. Apparatus **200** possesses units **10a**, **10b**, **10c** and **10d**, although any number of units could be utilized. Unit **10a** has 'S'-shaped body portion **210a**, upper hook end **240a** and ball end **220a**. Unit **10b** has 'S'-shaped body portion **210b**, upper hook end **240b** and ball end **220b**. Unit **10c** has 'S'-shaped body portion **210c**, upper hook end **240c** and ball end **220c**. Unit **10d** has 'S'-shaped body portion **210d**, upper hook end **240d**, and ball end **220d**. Apparatus **200** may be constructed having any number of units suitable for the hanging space available. In an alternative to this embodiment, apparatus **200** may be made of multiple component sections, such as **220b/210b**, and **220c/210c**, that may be snapped together, thus allowing the user to construct apparatus 200 of desired length.

Turning now to **FIG. 3A**, apparatus **300** is a multiple unit garment hanger having base frame **310** securable to a wall, door, or other suitable surface via suitable fasteners inserted through first hole **320** and second hole **330**. It will be recognized by those skilled in the art that various fastening devices may be used, with or without utilizing first hole **320** and second hole **330**.

Arranged on base frame **310** are upper hanger balls **340a**, **340b**, **340c**, **340d** and **340e** and lower hanger balls **350a**, **350b**, **350c**, **350d** and **350e**, wherein upper hanger balls **340a**, **340b**, **340c**, **340d** and **340e** extend outward from base frame **310** a greater distance than lower hanger balls **350a**, **350b**, **350c**, **350d** and **350e**. It has been found by the inventor that upper hanger balls **340a**, **340b**, **340c**, **340d** and **340e** best perform when they extend outward a distance approximately equal to their diameter beyond lower hanger balls **350a**, **350b**, **350c**, **350d** and **350e**.

Upper hanger balls **340a**, **340b**, **340c**, **340d** and **340e** and lower hanger balls **350a**, **350b**, **350c**, **350d** and **350e** are

supported on upper pegs **360a**, **360b**, **360c**, **360d** and **360e**, and lower pegs **370a**, **370b**, **370c**, **370d** and **370e**, respectively.

FIG. 3B depicts a device similar in part to **FIG. 3A** but comprised of a single lower ball/upper ball unit **400**. Unit **400** has base frame **410** with holes **420** and **430** therein for securing unit **400** to a wall, door, or other suitable surface. Located on base frame **410** are extension pegs **460** and **470** having upper ball **440** and lower ball **450**, respectively, attached thereto. Upper ball **440** extends outward a distance approximately equal to its diameter beyond lower ball **450**.

FIG. 3C depicts the general profile of the upper balls **340a-e** and lower balls **350a-e** of multiple unit apparatus **300** shown in **FIG. 3A**, and upper ball **440** and lower ball **450** of single unit **400** shown in **FIG. 3B**.

Referring now to **FIGS. 4A** and **4B**, an alternate embodiment **600** of the present invention is shown attached to a horizontal pole or rod, and to a wire closet shelf rack, respectively. Apparatus **600** is comprised of hanger frame **610**, hanger loop support **620**, neck **630**, fillets **640** and balls **690**. Fillets **640** serve to strengthen and align apparatus **600**.

Hanger frame **610** is comprised of first upper rod **650**, second upper rod **660**, first lower rod **670**, and second lower rod **680**, wherein first upper rod **650** and first lower rod **670** form hanger extension **720a**, and second upper rod **660** and second lower rod **680** form hanger extension **720b**.

Balls **690** are fixably attached via a suitable means, such as, for exemplary purposes only, by glue, to hanger frame **610** in pairs, located proximate one another on opposite sides of hanger frame **610**. First set of balls **892** is carried proximate first ends **710a** and **710b** of hanger extensions **720a** and **720b**, respectively, and proximate base **700** of neck **630**; second sets of balls **894a** and **894b** are carried proximate leg centers **750a** and **750b**, respectively, of hanger frame **610**; and third sets of balls **896a** and **896b** are carried proximate second ends **730a** and **730b** of hanger extensions **720a** and **720b**, respectively.

First lower rod **670** and second lower rod **680** are bent into an arc in order to facilitate securing first set of balls **892** in position below base **700** of neck **630**, and further to provide a location for securing and locating second sets of balls **894a** and **894b** at midpoints **750a** and **750b** of hanger

extensions **720a** and **720b**, respectively, and third sets of balls **896a** and **896b** at second ends **730a** and **730b** of hanger extensions **720a** and **720b**, respectively.

In operation, apparatus **600** is secured to a horizontal pole or rod by extending loop support **620** over and around the pole or rod and securing apparatus **600** thereon via screw **740** and nut **760** after passage of screw **740** through holes (not shown) in neck **630**. Alternately, when utilizing a wire closet shelf, loop support **620** is extended over and around the frame of the closet shelf and apparatus **600** is then secured by passage of screw **740** through holes (not shown) in neck **630** and securing screw **740** via nut **760**. Upon securing of apparatus **600**, clothing may be placed over individual balls **690** hanger frame **610**, wherein apparatus **600** supports the clothing with minimal deformation.

It is contemplated in an alternate embodiment that the individual components of the preferred and/or alternate embodiments of the present invention, namely the 'S'-shaped body and the ball end, could be independently formed and subsequently assembled by any suitable bonding means, such as,

for exemplary purposes only, adhesives, epoxies, resins, mecahnical fasteners, or the like.

It is further contemplated in an alternate embodiment that ball **60** could be formed from expanded polystyrene or other expanded rigid plastics and/or elastomeric compounds.

It is envisioned in an alternate embodiment that hook portion **40** could be elliptical or circular in cross-section.

It is envisioned in an alternate embodiment that ball **60** could be of any size, depending on the susceptibility of deformation of the clothing to be retained thereon.

The foregoing description and drawings comprise illustrative embodiments of the present invention. Having thus described exemplary embodiments of the present invention, it should be noted by those skilled in the art that the within disclosures are exemplary only, and that various other alternatives, adaptations, and modifications may be made within the scope of the present invention. Merely listing the steps of the method in a certain order does not constitute any limitation on the order of the steps of the method. Many

modifications and other embodiments of the invention will come to mind to one skilled in the art to which this invention pertains having the benefit of the teachings presented in the foregoing descriptions and the associated drawings. Therefore, it is to be understood that the invention is not to be limited to the specific embodiments disclosed and that modifications and other embodiments are intended to be included within the scope of the appended claims. Although specific terms are employed herein, they are used in a generic and descriptive sense only and not for purposes of limitation. Accordingly, the present invention is not limited to the specific embodiments illustrated herein, but is limited only by the following claims.